

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) ~~Process~~ A process for the production of a smoke adapted for smoking agro-food products product, said smoke product being obtained by pyrolysis of an organic material, ~~preferably vegetable, characterized in that it comprises essentially the steps consisting in:~~ wherein said process comprises the steps of:

- introducing said organic material to be pyrolyzed in a pyrolysis reactor comprising ~~essentially~~ a substantially hermetically sealed heatable chamber containing at least one rotatable endless screw heated by the Joule effect receiving said organic material, said material being introduced at one end of said at least one screw,
- heating said organic material in said chamber to a temperature comprised between ~~200°C and 800°C, preferably between 300°C and 400°C,~~ 300°C and 400°C so as to effect pyrolysis during its movement, under the influence of rotation of said at least one screw, and
- removing the consumed organic material and the produced smoke from the other end of said at least one screw.

2. (currently amended) ~~Process~~ The process according to claim 1, ~~characterized in that~~ wherein the organic material is dried by preheating before being pyrolyzed, ~~preferably in at least one specific preheating zone provided in the reactor and more preferably by electric heating of said zone or zones by the Joule effect.~~

3. (currently amended) ~~Process~~ The process according to claim 1, ~~characterized in that~~ wherein the heating of the organic material for its pyrolysis takes place by direct heating of the rotatable endless screw or screws, by electric heating by the Joule effect.

4. (currently amended) ~~Process~~ The process according to claim 1, ~~characterized in that~~ wherein the produced smoke is condensed at the outlet of the reactor in a suitable condensation device.

5. (currently amended) ~~Process~~ The process according to claim 1, ~~characterized in that~~ wherein at least one portion of the pyrolysis gas present at the outlet of the condensation device is re-injected into the reactor.

6. (currently amended) ~~Process~~ The process according to claim 1, ~~characterized in that~~ wherein the pyrolysis takes place

under precise control, to about 0.1%, of the volume content of oxygen in the reactor.

7. (currently amended) ~~Process~~ The process according to claim 1, ~~characterized in that~~ wherein the pyrolysis takes place under precise control, to about one degree Celsius, of the temperature prevailing in said reactor.

8. (currently amended) ~~Process~~ The process according to claim 1, ~~characterized in that~~ wherein the pyrolyzed organic material is essentially constituted by wood chips, ~~in particular wood adapted for the flavoring or the aging of wines and/or spirits.~~

9. (currently amended) ~~Process~~ The process according to claim 1, ~~characterized in that~~ wherein the pyrolyzed organic material is essentially constituted by fibers or chips of at least one ~~vegetable~~ substance ~~such as~~ selected from the group consisting of wood, cellulose, any other polysaccharide ~~[[or]]~~ and lignocellulose complex.

10. (currently amended) ~~Use of a pyrolysis reactor for the practice of the process according to claim 1, of the type comprising~~ A method of producing a smoke product, comprising operating a pyrolysis reactor by the process according to claim 1

to produce a smoke product, said pyrolysis reactor comprising  
essentially a substantially hermetically sealed heatable chamber  
containing at least one rotatable endless screw heated by the  
Joule effect, said at least one screw for receiving an organic  
material to be pyrolyzed, for the production of a smoke product  
~~adapted for the smoking of food products.~~

11. (currently amended) [[Use]] The method according to  
claim 10, ~~for the production~~ wherein the product is of liquid  
smoke.

12. (currently amended) [[Use]] The method according to  
claim 10, ~~for the production~~ wherein the product is of wood  
charcoal.

13. (currently amended) ~~Smoke~~ Liquid smoke product  
~~adapted to food product smoking,~~ obtained by the process  
according to claim 1, ~~characterized in that it has, once~~  
~~condensed as liquid smoke,~~ wherein said liquid smoke comprises a  
volume content of benzo[a]pyrene of at most 10 ppb and a volume  
content of benzoanthracene of at most 20 ppb.

14. (original) Liquid smoke obtained by condensation of  
smoke according to claim 13.

15. (currently amended) Foodstuff smoked ~~by the use of~~  
with the smoke according to claim 13.

16. (new) A process for producing smoke, comprising:  
introducing an organic material in a pyrolysis reactor,  
said pyrolysis reactor comprising

i) a substantially hermetically sealed heatable  
chamber, and

ii) at least one rotatable endless screw within said  
chamber for receiving said organic material at  
one end of said at least one rotatable endless  
screw,

rotating said at least one screw to move said organic  
material from one end to another of said at least one screw;

heating said at least one rotatable endless screw with  
a Joule effect to heat said organic material to effect pyrolysis  
during its movement, and

removing the consumed organic material and produced  
smoke from the other end of said at least one screw.